DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015723 Address: 333 Burma Road **Date Inspected:** 13-Jul-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

Mr. Gao Zhi Chun **CWI Name: CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Tower

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector observed the following work in progress:

BAY 11: SMAW Process.

This QA Inspector observed ZPMC qualified welding personnel identified as 046704, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as WSD1-SPSA5-12-4A. ZPMC QC Identified as Ma Qianli Ma, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040667, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate, Joint identified as WSD1-SPSA5-20-2A. ZPMC QC Identified as Ma Qianli Ma, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040614, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as ESD1-SPSA5-12-4A. ZPMC QC Identified as Ma Qianli Ma, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

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This QA Inspector observed ZPMC qualified welding personnel identified as 040656, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as WSD1-SPSA5-7-2B. ZPMC QC Identified as Ma Qianli Ma, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

SMAW Process Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Skin A base metal repair after removing temporary attachment, depth 4mm, ZPMC QC Identified as Libin with temporary welding repair report WRR-T-WR3467. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) 3G (3F)-Repair-1.

BAY 11 OBG Side plate:

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, 049220, 040723, 205649 Perform Flux Core Arc Welding (FCAW) on Side plate of OBG lift 13. Joint identified as SP3068-001-031, 032, 089, 090, 073, 074, ZPMC QC Identified as Ma Qianli Ma. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132. For more information see below attached picture number 1.

BAY 10, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220, Perform Shielded Metal Arc Welding (SMAW) on North tower lift 5 Stiffener, Joint identified as NSD1-TL5-3F-F-12B, 10, 5B. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

Ultrasonic Testing:

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performing UT on Interior Splice Plate. Interior splice plate identified as SSD1-SPSA5-6-1, 2, 3, 4A/B. For more information see below attached picture number 2.

BAY 10 OBG Lift 13:

This QA Inspector observed ZPMC qualified welding personnel identified as 053870, Perform Flux Core Arc Welding (FCAW) on Side plate of OBG lift 13. Joint identified as SP3081B-001-105, 106, ZPMC QC Identified as Sun Tian Liang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 052075, 053869, Perform Flux Core Arc Welding (FCAW) on Edge plate of OBG lift 13. Joint identified as EP3016-001- 003, 004, 005, 006, ZPMC QC Identified as Sun Tian Liang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer